

R E M A R K S

Claims 1 and 3-20 were pending in this application as of the April 1, 1004 mailing date of the current office action, and stood rejected pursuant to one or more of 35 U.S.C. §§102, 103 and §112. Also, the current office action included an objection to the claims and to current title of the invention.

As indicated above, claims 7-9 are cancelled herein, and claims 1, 3 and 19 are amended, as is the title of the invention. Applicants note for the record that claims 1 and 19 have been amended herein to further describe an embodiment of the claimed invention, and that claim 3 has been amended (a) to change its dependency from canceled claim 2 to claim 1, and (b) to reflect the amendments that have been made to claim 1 herein. No new matter is added by the claim 1 and claim 19 amendments, support for which is provided throughout the application as filed, including, *inter alia*, at page 32, lines 2-12.

Applicants note that claims 1 and 19 are amended herein solely to expedite allowance of this application. By amending these claims, Applicants do not dedicate the subject matter of claims 1 and 19 - as filed or as previously pending - to the public and do not acquiesce to the Examiner's current or previous rejection(s) of these claims, nor to the reason(s) offered by the Examiner in support of such rejection(s). Applicants also respectfully reserve the right to seek patent protection for claims that are similar or identical to claims 1 and 19 - as originally filed or as previously pending - in one or more related applications.

Applicants respectfully request that the Examiner consider and enter this response in accordance with 37 C.F.R. §1.116 because it places this application condition for immediate allowance, or at least in better condition for appeal. Moreover, this response contains amendments and/or remarks that are at least in part based on the disclosure of a reference (U.S. Patent No. 4,787,749 to Ban et al.) that was first cited in the current office action, and thus such amendments and/or remarks could not have been earlier presented.

Objection to the Title

The Examiner objects to the title of the invention as not being clearly indicative of the invention to which the claims are directed.

Applicants believe the Examiner's objection is unwarranted; however, solely to expedite allowance of this application, Applicants have deleted the pending title of the invention, and have inserted therefor a new title - APPARATUS AND METHOD FOR MEASURING THE THICKNESS OF A THIN FILM VIA THE INTENSITY OF REFLECTED LIGHT - that Applicants also submit is clearly indicative of the invention to which the claims are directed.

Applicants request entry of this amended title, which Applicants submit overcomes the current objection to the title of the invention.

Claim Rejections - 35 U.S.C. §112

The Examiner rejects claims 7-9 as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as the invention. As noted above, claims 7-9 have been canceled without prejudice, and thus this rejection is moot and should be withdrawn.

Claim Objections

The Examiner asserts that claims 10, 11 and 14 are substantial duplicates of claims 7-9. Inasmuch as claims 7-9 are canceled herein, this objection is now moot.

Claim Rejections – 35 U.S.C. §102 and 35 U.S.C. §103

Claims 1 and 19 are rejected pursuant to 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,787,749 to Ban et al. ("the Ban patent") and are separately rejected (along with claims 7, 10 and 20) pursuant 35 U.S.C. §102(b) as anticipated by Japanese Patent Publication No. 07-294220 to Shigeki et al. ("the Shigeki publication"). The Shigeki publication also forms the basis of the rejection of claims 17 and 18 pursuant to 35 U.S.C. §103(a), and - in combination with Japanese Patent Publication No. 61-165608 to Aritoshi ("the Aritoshi publication") - the rejection of claims 3 and 4, and - in combination with the Ban patent- the rejection of claims 8, 9 and 11-16. Lastly, claims 5 and 6 are rejected pursuant to 35 U.S.C. §103(a) over a combination of the Ban patent, the Shigeki publication and the Aritoshi publication.

Applicants submit that these cited references, whether considered alone or in proper combination, do not disclose or suggest the features of claims 1 and 19.

Regarding the Ban patent, the Examiner contends it teaches a film thickness system that includes a light source (1a), at least one input and output optical fiber (3) normal to the thin film, a detector (1c), and a computer. However, scrutiny of the Ban patent reveals that this contention does not appear to be supported by either the drawings or description of the reference.

In particular, FIG. 3A (which is reproduced on page 3 of the office action) is a schematic/block diagram, and thus does not necessarily represent the actual physical positions of the components of the thin film measurement system described in the Ban patent. In other words, it is improper to conclude that the respective positions of components illustrated in a block diagram are representative of their actual positions within an actual arrangement of the components. This is especially true where, as here, the description of the system within the Ban patent does not appear to describe or suggest that light is directed substantially perpendicular to a substrate via an optical fiber, as recited in claims 1 and 19 of the pending application.

Additionally it does not appear that the optical fiber in the system described in the Ban patent guides the light from the light source onto a substrate and the guides the reflected light from the substrate to said analyze unit as recited.

Specifically, and according to the description and drawings of the Ban patent, the fibers (3) do not appear to guide the reflected light to computer (5), which the Examiner appears to have equated with an analyze unit. Instead, the reflected light appears to be transmitted to a photoelectric converting element (1c) of the spectroscope unit (1), wherein it is then converted to an electrical signal. The role of the computer (5) in the system described in the Ban patent is to control the operation of the controller (4) and to calculate the film thickness.

Moreover, amended claims 1 and 19 recite an apparatus and method wherein a plurality of optical fibers are arranged around a first optical fiber, wherein the first optical fiber guides the light from a light source onto a substrate and at least one of the plurality of additional fibers guides the reflected light from the substrate to the analyze unit. Such an arrangement is neither disclosed nor suggested by the Ban patent, the Shigeki publication or the Aritoshi publication, and is advantageous because it allows for the reflected light to be received by one of the plurality of additional fibers even if the substrate is inclined at the time of measuring film thickness.

Thus, in view of the amendments and/or remarks above, claims 1 and 19 are patentable over the Ban patent, the Shigeki patent and the Aritoshi patent whether such references are considered alone or in proper combination. And wherein each of claims 3-18 and 20 depends either directly or ultimately from claim 1 or claim 19 (and thus includes the features thereof), those claims are patentable over these references as well.

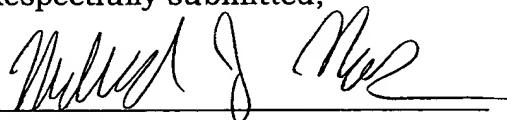
Therefore, wherein all of the pending rejections and objections have been overcome or demonstrated to be inappropriate, Applicant submits that the present application is believed to be in condition for allowance, and reconsideration and allowance thereof are respectfully requested.

If the undersigned can be of any assistance in advancing the prosecution of this case, the Examiner is invited to contact him through the information given below.

Date: May 28, 2004

By:

Respectfully submitted,



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